

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/772,076
Source: 1FW0
Date Processed by STIC: 10/22/04

ENTERED



IFWO

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/772,076

DATE: 10/22/2004

TIME: 13:08:25

Input Set : A:\18989-032US.txt

Output Set: N:\CRF4\10222004\J772076.raw

3 <110> APPLICANT: Bunn
 5 <120> TITLE OF INVENTION: Compositions and Methods of Treating Diabetes
 7 <130> FILE REFERENCE: 18989-032
 9 <140> CURRENT APPLICATION NUMBER: 10/772,076
 10 <141> CURRENT FILING DATE: 2004-02-03
 12 <150> PRIOR APPLICATION NUMBER: 60/444,784
 13 <151> PRIOR FILING DATE: 2003-02-03
 15 <160> NUMBER OF SEQ ID NOS: 11
 17 <170> SOFTWARE: PatentIn Ver. 2.1
 19 <210> SEQ ID NO: 1
 20 <211> LENGTH: 1676
 21 <212> TYPE: DNA
 22 <213> ORGANISM: Homo sapiens
 24 <400> SEQUENCE: 1

P.6

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25 agccttatgg attggattcg actgaccaa agtggaaagg atctaacggg attaaaaggc 60
26 aggttaattg aagtaactga agaagaactt aagaaacaca acaaaaaaga tgattgttgg 120
27 atatgcataa gaggtttcgt ttataatgtc agcccttata tggagtatca tcctgggtga 180
28 gaagatgaac taatgagagc agcaggatca gatggtactg aactttttga tcaggttcat 240
29 cgttgggtca attatgaatc catgctgaaa gaatgcctgg ttggcagaat ggccattaaa 300
30 cctgctgttc tgaaagacta tcgtgaggag gaaaagaaag tcttaaatgg catgcttccc 360
31 aagagccaag tgacagatac acttgccaaa gaaggctccta gttatccaag ctatgattgg 420
32 ttccaaacag actctttagt caccattgcc atataacta aacagaagga tatcaattta 480
33 gactcaatta tagttgatca tcagaatgat tcctttagag cagaaacaat tattaaggat 540
34 tgtttatata ttatacatat tgggctaagc catgagggtc aggaagattt ttctgtgcgg 600
35 gttgttgaga gtgtgggaaa aatagagatt gttctacaaa aaaaagagaa tacttcttgg 660
36 gactttcttg gccatcccct gaagaatcat aattcactta ttccaaggaa agatacagg 720
37 ttgtactaca gaaagtgcc gttaatttcc aaggaagatg ttactcatga tacgaggctt 780
38 ttctgtttga tgctgccacc aagcactcat cttcaagtgc ccattgggca acatgtttac 840
39 ctcaagctac ctattacagg tacagaaata gtaaagccat atacacctgt atctggttcc 900
40 ttactctcag agttcaagga accagtctct cccaacaata aatacatcta ctttttgata 960
41 aaaatctatc cactggact cttcacacca gagcttgatc gtcttcagat tggagatttt 1020
42 gtttctgtaa gcagtcctga gggcaatttt aaaatatcca agttccaaga attagaagat 1080
43 ctctttttgt tggcagctgg aacaggcttc acaccaatgg ttaaaatact gaattatgct 1140
44 ttgactgata taccagctct caggaaagtg aagctgatgt tcttcaataa aacagaagat 1200
45 gatataattt ggagaagcca attggagaaa ttagcattta aagataaaag actggatgtt 1260
46 gaatttgctt tctcagcacc tattttctgaa tggaatggca aacaggggaca tatttcacca 1320
47 gctcttcttt ctgaattttt gaaaagaaat ttggacaaat ccaaagttct cgtctgcatt 1380
48 tgtggaccag tgccatttac agaacaagga gtaagggtgc tgcattgatc caacttttcc 1440
49 aaaaatgaga tccatagttt tacagcataa tgaagagctg tcattgtcct ttattcaact 1500
50 agtttatcta aatttgatgat tgcttagggt tttttaagag aacatttttg tacataacaa 1560
51 aagggttaact agaatccagc cttcagtttc ttaaataaaa tcaaatgttc cttcagtaca 1620
52 ggtaacttct tggttttctt ttgtaccaca acttatttta ctactgatat ttgacc 1676
55 <210> SEQ ID NO: 2
  
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56 <211> LENGTH: 487
57 <212> TYPE: PRT
58 <213> ORGANISM: Homo sapiens
60 <400> SEQUENCE: 2
61 Met Asp Trp Ile Arg Leu Thr Lys Ser Gly Lys Asp Leu Thr Gly Leu
62   1           5           10           15
64 Lys Gly Arg Leu Ile Glu Val Thr Glu Glu Glu Leu Lys Lys His Asn
65           20           25           30
67 Lys Lys Asp Asp Cys Trp Ile Cys Ile Arg Gly Phe Val Tyr Asn Val
68           35           40           45
70 Ser Pro Tyr Met Glu Tyr His Pro Gly Gly Glu Asp Glu Leu Met Arg
71           50           55           60
73 Ala Ala Gly Ser Asp Gly Thr Glu Leu Phe Asp Gln Val His Arg Trp
74 65           70           75           80
76 Val Asn Tyr Glu Ser Met Leu Lys Glu Cys Leu Val Gly Arg Met Ala
77           85           90           95
79 Ile Lys Pro Ala Val Leu Lys Asp Tyr Arg Glu Glu Glu Lys Lys Val
80           100          105          110
82 Leu Asn Gly Met Leu Pro Lys Ser Gln Val Thr Asp Thr Leu Ala Lys
83           115          120          125
85 Glu Gly Pro Ser Tyr Pro Ser Tyr Asp Trp Phe Gln Thr Asp Ser Leu
86           130          135          140
88 Val Thr Ile Ala Ile Tyr Thr Lys Gln Lys Asp Ile Asn Leu Asp Ser
89 145          150          155          160
91 Ile Ile Val Asp His Gln Asn Asp Ser Phe Arg Ala Glu Thr Ile Ile
92           165          170          175
94 Lys Asp Cys Leu Tyr Leu Ile His Ile Gly Leu Ser His Glu Val Gln
95           180          185          190
97 Glu Asp Phe Ser Val Arg Val Val Glu Ser Val Gly Lys Ile Glu Ile
98           195          200          205
100 Val Leu Gln Lys Lys Glu Asn Thr Ser Trp Asp Phe Leu Gly His Pro
101          210          215          220
103 Leu Lys Asn His Asn Ser Leu Ile Pro Arg Lys Asp Thr Gly Leu Tyr
104 225          230          235          240
106 Tyr Arg Lys Cys Gln Leu Ile Ser Lys Glu Asp Val Thr His Asp Thr
107           245          250          255
109 Arg Leu Phe Cys Leu Met Leu Pro Pro Ser Thr His Leu Gln Val Pro
110           260          265          270
112 Ile Gly Gln His Val Tyr Leu Lys Leu Pro Ile Thr Gly Thr Glu Ile
113           275          280          285
115 Val Lys Pro Tyr Thr Pro Val Ser Gly Ser Leu Leu Ser Glu Phe Lys
116          290          295          300
118 Glu Pro Val Leu Pro Asn Asn Lys Tyr Ile Tyr Phe Leu Ile Lys Ile
119 305          310          315          320
121 Tyr Pro Thr Gly Leu Phe Thr Pro Glu Leu Asp Arg Leu Gln Ile Gly
122           325          330          335
124 Asp Phe Val Ser Val Ser Ser Pro Glu Gly Asn Phe Lys Ile Ser Lys
125           340          345          350
127 Phe Gln Glu Leu Glu Asp Leu Phe Leu Leu Ala Ala Gly Thr Gly Phe

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128          355          360          365
130 Thr Pro Met Val Lys Ile Leu Asn Tyr Ala Leu Thr Asp Ile Pro Ser
131          370          375          380
133 Leu Arg Lys Val Lys Leu Met Phe Phe Asn Lys Thr Glu Asp Asp Ile
134 385          390          395          400
136 Ile Trp Arg Ser Gln Leu Glu Lys Leu Ala Phe Lys Asp Lys Arg Leu
137          405          410          415
139 Asp Val Glu Phe Val Leu Ser Ala Pro Ile Ser Glu Trp Asn Gly Lys
140          420          425          430
142 Gln Gly His Ile Ser Pro Ala Leu Leu Ser Glu Phe Leu Lys Arg Asn
143          435          440          445
145 Leu Asp Lys Ser Lys Val Leu Val Cys Ile Cys Gly Pro Val Pro Phe
146          450          455          460
148 Thr Glu Gln Gly Val Arg Leu Leu His Asp Leu Asn Phe Ser Lys Asn
149 465          470          475          480
151 Glu Ile His Ser Phe Thr Ala
152          485
155 <210> SEQ ID NO: 3
156 <211> LENGTH: 135
157 <212> TYPE: PRT
158 <213> ORGANISM: Homo sapiens
160 <400> SEQUENCE: 3
161 Met Asp Trp Ile Arg Leu Thr Lys Ser Gly Lys Asp Leu Thr Gly Leu
162 1          5          10          15
164 Lys Gly Arg Leu Ile Glu Val Thr Glu Glu Glu Leu Lys Lys His Asn
165          20          25          30
167 Lys Lys Asp Asp Cys Trp Ile Cys Ile Arg Gly Phe Val Tyr Asn Val
168          35          40          45
170 Ser Pro Tyr Met Glu Tyr His Pro Gly Gly Glu Asp Glu Leu Met Arg
171          50          55          60
173 Ala Ala Gly Ser Asp Gly Thr Glu Leu Phe Asp Gln Val His Arg Trp
174 65          70          75          80
176 Val Asn Tyr Glu Ser Met Leu Lys Glu Cys Leu Val Gly Arg Met Ala
177          85          90          95
179 Ile Lys Pro Ala Val Leu Lys Asp Tyr Arg Glu Glu Glu Lys Lys Val
180          100          105          110
182 Leu Asn Gly Met Leu Pro Lys Ser Gln Val Thr Asp Thr Leu Ala Lys
183          115          120          125
185 Glu Gly Pro Ser Tyr Pro Ser
186          130          135
189 <210> SEQ ID NO: 4
190 <211> LENGTH: 90
191 <212> TYPE: PRT
192 <213> ORGANISM: Homo sapiens
194 <400> SEQUENCE: 4
195 Tyr Asp Trp Phe Gln Thr Asp Ser Leu Val Thr Ile Ala Ile Tyr Thr
196 1          5          10          15
198 Lys Gln Lys Asp Ile Asn Leu Asp Ser Ile Ile Val Asp His Gln Asn
199          20          25          30

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201 Asp Ser Phe Arg Ala Glu Thr Ile Ile Lys Asp Cys Leu Tyr Leu Ile
202          35          40          45
204 His Ile Gly Leu Ser His Glu Val Gln Glu Asp Phe Ser Val Arg Val
205          50          55          60
207 Val Glu Ser Val Gly Lys Ile Glu Ile Val Leu Gln Lys Lys Glu Asn
208 65          70          75          80
210 Thr Ser Trp Asp Phe Leu Gly His Pro Leu
211          85          90
214 <210> SEQ ID NO: 5
215 <211> LENGTH: 262
216 <212> TYPE: PRT
217 <213> ORGANISM: Homo sapiens
219 <400> SEQUENCE: 5
220 Lys Asn His Asn Ser Leu Ile Pro Arg Lys Asp Thr Gly Leu Tyr Tyr
221 1          5          10          15
223 Arg Lys Cys Gln Leu Ile Ser Lys Glu Asp Val Thr His Asp Thr Arg
224          20          25          30
226 Leu Phe Cys Leu Met Leu Pro Pro Ser Thr His Leu Gln Val Pro Ile
227          35          40          45
229 Gly Gln His Val Tyr Leu Lys Leu Pro Ile Thr Gly Thr Glu Ile Val
230          50          55          60
232 Lys Pro Tyr Thr Pro Val Ser Gly Ser Leu Leu Ser Glu Phe Lys Glu
233 65          70          75          80
235 Pro Val Leu Pro Asn Asn Lys Tyr Ile Tyr Phe Leu Ile Lys Ile Tyr
236          85          90          95
238 Pro Thr Gly Leu Phe Thr Pro Glu Leu Asp Arg Leu Gln Ile Gly Asp
239          100          105          110
241 Phe Val Ser Val Ser Ser Pro Glu Gly Asn Phe Lys Ile Ser Lys Phe
242          115          120          125
244 Gln Glu Leu Glu Asp Leu Phe Leu Leu Ala Ala Gly Thr Gly Phe Thr
245          130          135          140
247 Pro Met Val Lys Ile Leu Asn Tyr Ala Leu Thr Asp Ile Pro Ser Leu
248 145          150          155          160
250 Arg Lys Val Lys Leu Met Phe Phe Asn Lys Thr Glu Asp Asp Ile Ile
251          165          170          175
253 Trp Arg Ser Gln Leu Glu Lys Leu Ala Phe Lys Asp Lys Arg Leu Asp
254          180          185          190
256 Val Glu Phe Val Leu Ser Ala Pro Ile Ser Glu Trp Asn Gly Lys Gln
257          195          200          205
259 Gly His Ile Ser Pro Ala Leu Leu Ser Glu Phe Leu Lys Arg Asn Leu
260          210          215          220
262 Asp Lys Ser Lys Val Leu Val Cys Ile Cys Gly Pro Val Pro Phe Thr
263 225          230          235          240
265 Glu Gln Gly Val Arg Leu Leu His Asp Leu Asn Phe Ser Lys Asn Glu
266          245          250          255
268 Ile His Ser Phe Thr Ala
269          260
272 <210> SEQ ID NO: 6
273 <211> LENGTH: 494

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Input Set : A:\18989-032US.txt

Output Set: N:\CRF4\10222004\J772076.raw

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274 <212> TYPE: PRT
275 <213> ORGANISM: Mus musculus
277 <400> SEQUENCE: 6
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279   1           5           10           15
281 Lys Gly Gly Leu Ile Glu Val Thr Glu Glu Glu Leu Lys Lys His Asn
282           20           25           30
284 Lys Lys Glu Asp Cys Trp Ile Cys Ile Arg Gly Phe Val Tyr Asn Val
285           35           40           45
287 Ser Pro Tyr Met Glu Tyr His Pro Gly Gly Glu Asp Glu Leu Met Arg
288           50           55           60
290 Ala Ala Gly Ala Asp Gly Thr Asp Leu Phe Asn Glu Val His Arg Trp
291   65           70           75           80
293 Val Asn Tyr Glu Ser Met Leu Lys Glu Cys Leu Val Gly Arg Met Ala
294           85           90           95
296 Val Lys Pro Ala Val Pro Lys Asp Cys His Glu Gly Lys Arg Val Leu
297           100          105          110
299 Asn Gly Met Leu Pro Lys Ser Gln Met Ser Asp Thr Leu Pro Arg Asp
300           115          120          125
302 Val Thr Asp Thr Leu Pro Arg Glu Gly Leu Ser Ser Pro Ser Tyr Asp
303           130          135          140
305 Trp Phe Gln Thr Glu Ser Ser Val Thr Ile Val Val Tyr Thr Lys Gln
306  145          150          155          160
308 Lys Asn Ile Ser Leu Asp Ser Val Ile Val Asp Leu Gln Asp Asp Ser
309           165          170          175
311 Leu Arg Ala Glu Ala Val Ile Lys Asp His Ser Tyr Leu Val His Val
312           180          185          190
314 Gly Leu Ser His Glu Val Gln Glu Asn Phe Ser Val Arg Val Ile Glu
315           195          200          205
317 Asn Val Gly Lys Ile Glu Ile Val Leu Gln Lys Lys Glu Ser Val Ser
318           210          215          220
320 Trp Gln Cys Leu Gly Asp His Leu Glu Lys His Asp Ser Phe Ile Pro
321  225          230          235          240
323 Lys Lys Asp Thr Gly Leu Tyr Tyr Arg Arg Cys Gln Leu Ile Ser Lys
324           245          250          255
326 Glu Asp Val Thr His Asp Thr Arg Leu Leu Cys Leu Met Leu Pro Pro
327           260          265          270
329 Ser Thr His Leu Gln Val Pro Val Gly Gln His Val Tyr Leu Lys Leu
330           275          280          285
332 Ser Val Thr Gly Ala Glu Ile Val Lys Pro Tyr Thr Pro Val Ser Asp
333           290          295          300
335 Ser Leu Leu Ser Asp Phe Lys Glu Pro Val Leu Ser Pro Asn Lys Tyr
336  305          310          315          320
338 Ile Tyr Phe Leu Ile Lys Ile Tyr Pro Ala Gly Leu Phe Thr Pro Glu
339           325          330          335
341 Leu Asp Arg Leu Gln Ile Gly Asp Phe Ile Ser Val Ser Gly Pro Glu
342           340          345          350
344 Gly Asn Phe Lys Val Ser Lys Leu Gln Glu Val Glu Asp Leu Phe Leu
345           355          360          365

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/772,076

DATE: 10/22/2004
TIME: 13:08:26

Input Set : A:\18989-032US.txt
Output Set: N:\CRF4\10222004\J772076.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:8; Xaa Pos. 4,13,19,35,68,72,75,76,97,102,105,106,108,109,111,122,123
Seq#:8; Xaa Pos. 124,125,126,127,128,129,135,136,139,141,150,152,156,157
Seq#:8; Xaa Pos. 163,165,169,173,175,178,182,183,187,188,191,193,202,208
Seq#:8; Xaa Pos. 210,219,223,224,227,228,231,232,234,235,237,239,242,251
Seq#:8; Xaa Pos. 267,281,290,291,294,305,310,317,318,331,347,351,358,361
Seq#:8; Xaa Pos. 364,381,382,385,388,389,390,391,412,419,420,421,424,425
Seq#:8; Xaa Pos. 428,434,435,444,446,454,456,457,458,459,461,462,463,464
Seq#:8; Xaa Pos. 470,474,475,477,487,488,492
Seq#:9; Xaa Pos. 4,13,19,35,68,72,75,76,97,102,105,106,108,109,111,122,123
Seq#:9; Xaa Pos. 124,125,126,127,128,129,135
Seq#:10; Xaa Pos. 1,4,6,15,17,21,22,28,30,34,38,40,43,47,48,52,53,56,58,67
Seq#:10; Xaa Pos. 73,75,84,88,89,92,93,96,97,99,100,102,104
Seq#:11; Xaa Pos. 2,11,27,41,50,51,54,65,70,77,78,91,107,111,118,121,124
Seq#:11; Xaa Pos. 141,142,145,148,149,150,151,172,179,180,181,184,185,188
Seq#:11; Xaa Pos. 194,195,204,206,214,216,217,218,219,221,222,223,224,230
Seq#:11; Xaa Pos. 234,235,237,247,248,252

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/772,076

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Input Set : A:\18989-032US.txt

Output Set: N:\CRF4\10222004\J772076.raw

L:487 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
M:341 Repeated in SeqNo=8
L:596 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
M:341 Repeated in SeqNo=9
L:639 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
M:341 Repeated in SeqNo=10
L:676 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
M:341 Repeated in SeqNo=11